

- Musa IV. Certain triploid clones. *J. Genet.* 43:337-357.
- COTTAM, W. P. 1954. Prevernal leafing aspen in Utah Mountains. *J. Arnold Arbor.* 35:239-248.
- . 1963. Quaking aspen (*Populus tremuloides* Michx.). *Naturalist* 14:3-15.
- DARLINGTON, C. D., and A. P. WYLIE. 1955. *Chromosome atlas of flowering plants.* Allen and Unwin, London.
- DAVIS, P. H., and V. H. HEYWOOD. 1963. *Principles of angiosperm taxonomy.* Van Nostrand, Princeton.
- ELLISON, L. 1943. A natural seedling of western aspen. *J. Forest.* (Washington) 41:767-768.
- FOWELS, H. A. 1965. *Silvics of forest trees of the United States.* U. S. D. A. Handb. 271.
- JOHNSON, H. 1940. Cytological studies of diploid and triploid *Populus tremula* and of crosses between them. *Hereditas* 26:321-352.
- . 1942. Cytological studies of triploid progenies of *Populus tremula.* *Hereditas* 27:306-312.
- LARSON, G. C. 1944. More on seedlings of western aspen. *J. Forest.* (Washington) 42:452.
- MÜNTZING, A. 1936a. The chromosomes of a giant *Populus tremula.* *Hereditas* 21: 383-393.
- . 1936b. The evolutionary significance of autopolyploidy. *Hereditas* 21: 263-378.
- PAULEY, S. S., and G. F. MENNEL. 1957. Sex ratio and hermaphroditism in a natural population of quaking aspen. *Minnesota Fores. Notes* 55.
- SANTAMOUR, F. S. 1956. Hermaphroditism in *Populus.* *Proc. Third Northeast Forest Tree Impr. Conf.*
- SARGENT, C. S. 1961. *Manual of the trees of North America.* Dover Publications, New York.
- STEBBINS, G. L. 1950. *Variation and evolution in plants.* Columbia Univ. Press, New York.
- VAN BUIJTENEN, J. P. 1957. A technique for fixing and staining mitotic chromosomes in aspen. *Forest Sci.* 5:48.
- , P. N. JORANSON, and D. W. EINSPAHR. 1957. Naturally occurring triploid quaking aspen in the United States. *Proc. Soc. Amer. Foresters Ann. Meeting,* Syracuse, New York.
- , and D. W. EINSPAHR. 1959. Note on the presence of sex chromosomes in *Populus tremuloides.* *Bot. Gaz.* 121:60-61.

NOMENCLATURE AND INTERPRETATION OF A CALIFORNIA SUBSPECIES IN ARCTOSTAPHYLOS (ERICACEAE)

ROMAN GANKIN

Jack McCormick & Associates,
860 Waterloo Rd., Devon, Pennsylvania 19333

McMinn (1939), having had access to Adams' specimens and doctoral dissertation (1935), published *Arctostaphylos tomentosa* (Pursh) Lindl. var. *crinita* Adams ex McMinn with a Latin diagnosis ("A specie differt: ramis junioribus tomentosis et albo-divaricate-crinitis; corticis levigatis.") Adams (1940) published the same variety as *A. crustacea* Eastw. var. *tomentosiformis* Adams for which he cited as type *Adams 928* (UC

531720, UC 531721). However, the only epithet written on the type is *A. tomentosa* var. *crinita*, just as McMinn had published it. Munz (1959), interpreted this to be a variety of *A. tomentosa*, overlooking McMinn's Latin diagnosis for var. *crinita*, and accepting Adams' var. *tomentosiformis* instead of McMinn's var. *crinita*, published *A. tomentosa* var. *tomentosiformis* (Adams) Munz. Since var. *crinita* does in fact have a Latin description, it must be the valid name.

Wells (1968) made some important nomenclatural changes in interpreting the *A. tomentosa* alliance and included *A. crustacea* as a subspecies of *A. tomentosa* (*A. tomentosa* ssp. *crustacea* (Eastw.) Wells). If his interpretation is to be considered valid, and the validity of *A. tomentosa* var. *crinita*, described above, is valid, then it is only logical that a new combination be made: *Arctostaphylos tomentosa* (Pursh) Lindl. ssp. *crinita* (Adams ex McMinn) Gankin, comb. nov.

The distribution of *A. tomentosa* ssp. *crinita* is of particular interest. Its northernmost outpost seems to be on Montara Mountain in northern San Mateo Co. where it is sympatric with *A. montaraensis* Roof. It seems to be absent, replaced by ssp. *rosei*, ssp. *tomentosa*, and ssp. reaches its greatest abundance in southern Santa Cruz Co. where it comes in contact with such species as *A. glutinosa* Schreib., *A. silvicola* Jeps. & Wiesl., *A. nummularia* Gray ssp. *sensitiva* (Jeps.) Wells, *A. andersonii* Gray, and *A. canescens* Eastw. in various localities. Throughout the Pajaro Hills and the Santa Lucia Mountains this subspecies seems to be absent, replaced by ssp. *rosei*, ssp. *tomentosa*, and ssp. *crustacea*. Wells (1968) described ssp. *insulicola* from Santa Cruz Island. The only distinction between ssp. *crinita* and ssp. *insulicola*, according to Wells, is the apparent lack of setose hairs on ssp. *insulicola*. However, examination of a number of specimens of this subspecies from Santa Cruz Island has shown that there certainly are plenty of specimens with sporadic, non-glandular, setose hairs. In the opinion of this author, the specimens on Santa Cruz Island which have been named ssp. *insulicola* by Wells are insufficiently distinct from and could be considered as relictual forms of ssp. *crinita*, thereby extending the range of ssp. *crinita* to as far south as Santa Cruz Island, Santa Barbara Co.

LITERATURE CITED

- ADAMS, J. E. 1935. A systematic study of the genus *Arctostaphylos*. Ph.D. Thesis, University of California, Berkeley.
———. 1940. A systematic study of the genus *Arctostaphylos*. J. Elisha Mitchell Sci. Soc. 56:1-62.
MCMINN, H. E. 1939. An illustrated manual of California shrubs. Univ. California Press, Berkeley.
MUNZ, P. A. 1959. A California flora. Univ. California Press, Berkeley.
WELLS, P. V. 1968. New taxa, combinations, and chromosome numbers in *Arctostaphylos* (Ericaceae). Madroño 14:193-210.